

Intrinsically Bactericidal Absorbent Dressing and Method of Fabrication

Application 09/857906 FILED 7/1/02 IS THE NATIONAL  
STAGE ENTRY OF PCT/US99/29091 WHICH CLAIMS PRIORITY TO  
Field of the Invention

5 This invention relates generally to absorbent dressings, and more particularly highly-  
absorbent synthetic polymer dressings having antimicrobial agents attached thereto.

PROVISIONAL  
60/111472

Background of the Invention

10 Bacterial growth in absorbent dressings for wounds, urinary incontinence diapers, and  
menstruation pads can lead to serious medical complications as well as social difficulties. For  
example, bacterial growth in urinary incontinence diapers or menstruation pads usually  
produces strong, unpleasant odors that are socially unacceptable and can cause persons to alter  
their lifestyle. Conventional absorbent pads for urinary incontinence and menstruation are not  
inherently bactericidal. Consequently, the only way to avoid growth of bacteria in the  
15 absorbent dressings is to change them at frequent intervals, even if the absorbent capacity of  
the pad has not been reached. In the area of wound dressings, bacterial contamination of acute  
wounds and infection of chronic skin wounds are major clinical problems that can result in  
significant morbidity and, in severe cases, mortality. Conventionally, wound dressings have  
been designed to absorb wound fluids and yet provide a moist environment for promoting  
20 wound healing. However, such moist environments create a nutrient rich reservoir for  
bacterial growth in the dressing. Bacteria growing in the dressing can be shed back into the  
wound, increasing the risk of wound infection, or response to toxins, and producing strong,  
foul odors.

25 In an effort to address these problems, antibiotics or chemical disinfectants are  
frequently applied topically to wounds prior to covering the wound with a dressing.